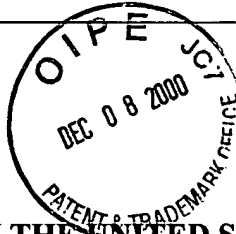


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By: [Signature]



PATENT

Attorney Docket No.: 14538A-004010US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

JONATHAN A. COOPER, et al.

Application No.: 09/486,293

Filed: February 22, 2000

For: ISOLATION AND EXPRESSION
OF A DISABLED PROTEIN
GENE MdaB1 AND METHODS

Examiner: Not Assigned

Art Unit: Not Assigned

**INFORMATION DISCLOSURE
STATEMENT**

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Applicants direct the Examiner's attention to the references below, also listed on the accompanying Form PTO-1449. A copy of each is also enclosed.

The following U.S. Patents are set forth below by issue date.

AA. U.S. Patent No. 4,816,397 issued on March 28, 1989 to Michael A.

Boss, et al.

The following international patent publications are set forth by approximate publication date.

AB. International Publication No. WO 97/10252 issued on March 20, 1997

to Fred Hutchinson Cancer Research Center.

The following articles are set forth by the indicated year of publication date.

AC. Caviness et al., "Retrohippocampal, Hippocampal and Related Structures of the Forebrain in the Reeler Mutant Mouse," J. Comp. Neur. 147: 235-254 (1973).

AD. Goffinet, "An Early Developmental Defect in the Cerebral Cortex of the Reeler Mouse," Anat. Embryol. 157: 205-216 (1979).

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It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

Applicants believe that their invention as claimed is patentable over the above references taken alone or in any combination. However, Applicants reserve the right to demonstrate that their claimed invention was made prior to any one or more of the above-identified references. No inference should be drawn as to the pertinence of the references based on the order in which they are presented.

Applicants respectfully request that the Examiner review the foregoing references to make his own determination of the patentability of the present invention and that the references be made of record in the file of this application.

This Information Disclosure Statement is being filed prior to the mailing date of the first Office Action and three months after the filing date, but prior to the Notice of Allowance or Final Office Action.

Although no fee is believed to be due, the Commissioner is hereby authorized to charge any fees necessitated by this transmittal to Townsend and Townsend Deposit Account No. 20-1430.

Respectfully submitted,

Dated: 5 December 2000

By: Brian W. Poor
Brian W. Poor
Reg. No. 32,928

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FORM PTO-1449 (Modified)		Attorney Docket No.: 14538A-004010US		Application No.: 09/486,293	
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant: Cooper, et al.			
		Filing Date: February 22, 2000		Group: Not Assigned	
Reference Designation		U.S. PATENT DOCUMENTS			
Examiner Initial	Document No.	Date	Name	Class	Filing Date (If Appropriate)
AA	4,816,397	03/28/89	Boss, et al.		
FOREIGN PATENT DOCUMENTS					
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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)					
AC	Caviness et al., "Retrohippocampal, Hippocampal and Related Structures of the Forebrain in the Reeler Mutant Mouse," <u>J. Comp. Neur.</u> 147: 235-254 (1973).				
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_____ BL	Okada et al., "Deletion of the SH3 Domain of Src Interferes with Regulation by the Phosphorylated Carboxyl-terminal Tyrosine," <u>J. Biol. Chem.</u> 268: 18070-18075 (1993).		
_____ BM	Songyang et al., "SH2 Domains Recognize Specific Phosphopeptide Sequences," <u>Cell</u> 72: 767-778 (1993).		
_____ BN	Vojtek et al., "Mammalian Ras Interacts Directly with the Serine/Threonine Kinase Raf," <u>Cell</u> 74: 205-214 (1993).		
_____ BO	Vojtek and Cooper, "Identification and Characterization of a cDNA Encoding Mouse CAP: a Homolog of the Yeast Adenylyl Cyclase Associated Protein," <u>J. Cell Sci.</u> 105: 777-785 (1993).		
_____ BP	Wu and Goldberg, "Regulated Tyrosine Phosphorylation at the Tips of Growth Cone Filopodia," <u>J. Cell Biol.</u> 123: 653-664 (1993).		
_____ BQ	Beggs et al., "NCAM-dependent Neurite Outgrowth Is Inhibited in Neurons from <i>Fyn</i> -minus Mice," <u>J. Cell. Biol.</u> 127: 825-833 (1994).		
_____ BR	Cobb et al., "Stable Association of pp60 ^{src} and pp59 ^{lyn} with the Focal Adhesion-Associated Protein Tyrosine Kinase, pp125 ^{FAK} ," <u>Mol. Cell. Biol.</u> 14: 147-155 (1994).		
_____ BS	Feng et al., "Two Binding Orientations for Peptides to the Src SH3 Domain: Development of a General Model for SH3-Ligand Interactions," <u>Science</u> 266: 1241-1247 (1994).		
_____ BT	Fumagalli et al., "A Target for Src in Mitosis," <u>Nature</u> 368: 871-874 (1994).		
_____ BU	Howell and Cooper, "Csk Suppression of Src Involves Movement of Csk to Sites of Src Activity," <u>Mol. Cell. Biol.</u> 14: 5402-5411 (1994).		
_____ BV	Ignelzi et al., "Impaired Neurite Outgrowth of <i>src</i> -Minus Cerebellar Neurons on the Cell Adhesion Molecule L1," <u>Neuron</u> 12: 873-884 (1994).		

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LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant: Cooper, et al.			
		Filing Date: February 22, 2000		Group: Not Assigned	
_____ BW	Kavanaugh and Williams, "An Alternative to SH2 Domains for Binding Tyrosine-phosphorylated Proteins," <u>Science</u> 266: 1862-1865 (1994).				
_____ BX	Mok et al., "Molecular Cloning of Differentially Expressed Genes in Human Epithelial Ovarian Cancer," <u>Gyn Oncol.</u> 52: 247-252 (1994).				
_____ BY	Sabe et al., "Analysis of the Binding of the Src Homology 2 Domain of Csk to Tyrosine-phosphorylated Proteins in the Suppression and Mitotic Activation of c-Src," <u>Proc. Natl. Acad. Sci. USA</u> 91: 3984-3988 (1994).				
_____ BZ	Schaller et al., "Autophosphorylation of the Focal Adhesion Kinase, pp125 ^{FAK} , Directs SH2-Dependent Binding of pp60 ^{src} ," <u>Mol. Cell. Biol.</u> 14: 1680-1688 (1994).				
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_____ CB	Taylor and Shalloway, "An RNA-binding Protein Associated with Src Through its SH2 and SH3 Domains in Mitosis," <u>Nature</u> 368: 867-871 (1994).				
_____ CC	Umemori et al., "Initial Events of Myelination Involve Fyn Tyrosine Kinase Signalling," <u>Nature</u> 367: 572-576 (1994).				
_____ CD	Wilson et al., "2.2 Mb of Contiguous Nucleotide Sequence From Chromosome III of <i>C. elegans</i> ," <u>Nature</u> 368: 32-38 (1994).				
_____ CE	Yu et al., "Structural Basis for the Binding of Proline-Rich Peptides to SH3 Domains," <u>Cell</u> 76: 933-945 (1994).				
_____ CF	Alonso et al., "Sequence Requirements for Binding of Src Family Tyrosine Kinases to Activated Growth Factor Receptors," <u>J. Biol. Chem.</u> 270: 9840-9848 (1995).				
_____ CG	Batzer et al., "The Phosphotyrosine Interaction Domain of Shc Binds an LXNPXY Motif on the Epidermal Growth Factor Receptor," <u>Mol. Cell. Biol.</u> 15: 4403-4409 (1995).				
_____ CH	Bork and Margolis, "A Phosphotyrosine Interaction Domain," <u>Cell</u> 80: 694-694 (1995).				
_____ CI	Callahan et al., "Control of Neuronal Pathway Selection by a <i>Drosophila</i> Receptor Protein-tyrosine Kinase Family Member," <u>Nature</u> 376: 171-174 (1995).				
_____ CJ	D'Arcangelo et al., "A Protein Related to Extracellular Matrix Proteins Deleted in the Mouse Mutant <i>reeler</i> ," <u>Nature</u> 374: 719-723 (1995).				
_____ CK	Duyster et al., "Src Homology 2 Domain as a Specificity Determinant in the c-Abl-mediated Tyrosine Phosphorylation of the RNA Polymerase II Carboxyl-terminal Repeated Domain," <u>Proc. Natl. Acad. Sci. USA</u> 92: 1555-1559 (1995).				
_____ CL	Goldberg and Wu, "Inhibition of Formation of Filopodia after Axotomy by Inhibitors of Protein Tyrosine Kinases," <u>J. Neurobiol.</u> 27: 553-560 (1995).				
_____ CM	Hill et al., "Genetic Interactions Between the <i>Drosophila</i> Abelson (Abl) Tyrosine Kinase and Failed Axon Connections (Fax), a Novel Protein in Axon Bundles," <u>Genetics</u> 141: 595-606 (1995).				
_____ CN	Hirotsune et al., "The Reeler Gene Encodes a Protein with an EGF-like Motif Expressed by Pioneer Neurons," <u>Nat. Genet.</u> 10: 77-83 (1995).				
_____ CO	Hoffarth et al., "The Mouse Mutation <i>Reeler</i> Causes Increased Adhesion within a Subpopulation of Early Postmitotic Cortical Neurons," <u>J. Neurosci.</u> 15: 4838-4850 (1995).				
_____ CP	Hollenberg et al., "Identification of a New Family of Tissue-Specific Basic Helix-Loop-Helix Proteins with a Two-Hybrid System," <u>Mol. Cell. Biol.</u> 15: 3813-3822 (1995).				
_____ CQ	Kavanaugh et al., "PTB Domain Binding to Signaling Proteins Through a Sequence Motif Containing Phosphotyrosine," <u>Science</u> 268: 1177-1179 (1995).				
_____ CR	Lai et al., "A <i>Drosophila</i> <i>shc</i> Gene Product is Implicated in Signaling by the DER Receptor Tyrosine Kinase," <u>Mol. Cell. Biol.</u> 15: 4810-4818 (1995).				
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_____ CT	McConnell, "Constructing the Cerebral Cortex: Neurogenesis and Fate Determination," <u>Neuron</u> 15: 761-768 (1995).				

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_____ CU	Ogawa et al., "The <i>reeler</i> Gene-Associated Antigen on Cajal-Retzius Neurons is a Crucial Molecule for Laminar Organization of Cortical Neurons," <u>Neuron</u> 14: 899-912 (1995).		
_____ CV	Smeyne et al., "Local Control of Granule Cell Generation by Cerebellar Purkinje Cells," <u>Mol. Cell. Biol.</u> 6: 230-251 (1995).		
_____ CW	Songyang et al., "Catalytic Specificity of Protein-tyrosine Kinases is Critical for Selective Signaling," <u>Nature</u> 373: 536-539 (1995).		
_____ CX	Songyang et al., "The Phosphotyrosine Interaction Domain of SHC Recognizes Tyrosine-phosphorylated NPXY Motif," <u>J. Biol. Chem.</u> 270: 14863-14866 (1995).		
_____ CY	Tessier-Lavigne, "Eph Receptor Tyrosine Kinases, Axon Repulsion, and the Development of Topographic Maps," <u>Cell</u> 82: 345-348 (1995).		
_____ CZ	Vaillancourt et al., "Mitogen-Activated Protein Kinase Activation is Insufficient for Growth Factor Receptor-Mediated PC12 Cell Differentiation," <u>Mol. Cell. Biol.</u> 15: 3644-3653 (1995).		
_____ DA	van der Geer et al., "A Conserved Amino-terminal Shc Domain Binds to Phosphotyrosine Motifs in Activated Receptors and Phosphopeptides," <u>Curr. Biol.</u> 5: 404-412 (1995).		
_____ DB	Vojtek and Hollenberg, "Ras-Raf Interaction: Two-Hybrid Analysis," <u>Meth. Enzymol.</u> 255: 331-342 (1995).		
_____ DC	Xu et al., "Cloning of a Novel Phosphoprotein Regulated by Colony-stimulating Factor 1 Shares a Domain with the <i>Drosophila disabled</i> Gene Product," <u>J. Biol. Chem.</u> 270: 14184-14191 (1995).		
_____ DD	Zheng et al., "β-Amyloid Precursor Protein-Deficient Mice Show Reactive Gliosis and Decreased Locomotor Activity," <u>Cell</u> 81: 525-531 (1995).		
_____ DE	Zhou et al., "Structure and Ligand Recognition of the Phosphotyrosine Binding Domain of Shc," <u>Nature</u> 378: 584-592 (1995).		
_____ DF	Albertsen et al., "Sequence, Genomic Structure, and Chromosomal Assignment of Human DOC-2," <u>Genomics</u> 33: 207-213 (1996).		
_____ DG	Brown and Cooper, "Regulation, Substrates and Functions of src," <u>Biochim. Biophys. Acta</u> 1287: 121-149 (1996).		
_____ DH	Desai et al., "Receptor Tyrosine Phosphatases Are Required for Motor Axon Guidance in the <i>Drosophila</i> Embryo," <u>Cell</u> 84: 599-609 (1996).		
_____ DI	Eck et al., "Structure of the IRS-1 PTB Domain Bound to the Juxtamembrane Region of the Insulin Receptor," <u>Cell</u> 85: 695-705 (1996).		
_____ DJ	Keegan and Cooper, "Use of the Two Hybrid System to Detect the Association of the Protein-tyrosine-phosphatase, SHPTP2, with Another SH2-containing Protein, Grb7," <u>Oncogene</u> 12: 1537-1544 (1996).		
_____ DK	Krueger et al., "The Transmembrane Tyrosine Phosphatase DLAR Controls Motor Axon Guidance in <i>Drosophila</i> ," <u>Cell</u> 84: 611-622 (1996).		
_____ DL	Lioubin et al., "p 150 ^{Ship} , a Signal Transduction Molecule with Inositol Polyphosphate-5-phosphatase Activity," <u>Genes Devel.</u> 10: 1084-1095 (1996).		
_____ DM	Margolis, "The PI/PTB Domain: A New Protein Interaction Domain Involved in Growth Factor Receptor Signaling," <u>J. Lab. Clin. Med.</u> 128:235-241 (1996).		
_____ DN	Miyata et al., "Distribution of a Reeler Gene-Related Antigen in the Developing Cerebellum: An Immunohistochemical Study With an Allogeneic Antibody CR-50 on Normal and Reeler Mice," <u>J. Comp. Neurol.</u> 372: 215-228 (1996).		
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_____ DP	Ohshima et al., "Targeted Disruption of the Cyclin-dependent Kinase 5 Gene Results in Abnormal Corticogenesis, Neuronal Pathology and Perinatal Death," <u>Proc. Natl. Acad. Sci. USA</u> 93: 11173-11178 (1996).		
_____ DQ	Selko, "Amyloid β-Protein and the Genetics of Alzheimer's Disease," <u>J. Biol. Chem.</u> 271: 18295-18298 (1996).		
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_____ DS	Zhou et al., "Structural Basis for IL-4 Receptor Phosphopeptide Recognition by the IRS-1 PTB Domain," <u>Nature Struct. Biol.</u> 3: 388-393 (1996).		
_____ DT	Chae et al., "Mice Lacking p35, a Neuronal Specific Activator of Cdk5, Display Cortical Lamination Defects, Seizures, and Adult Lethality," <u>Neuron</u> 18: 29-42 (1997).		
_____ DU	Del Rio et al., "A Role for Cajal-Retzius Cells and <i>reelin</i> in the Development of Hippocampal Connections," <u>Nature</u> 385: 70-74 (1997).		
_____ DV	Howell et al., "Mouse Disabled (mDab1): a Src Binding Protein Implicated in Neuronal Development," <u>EMBO J.</u> 16: 121-132 (1997).		
_____ DW	Sheldon et al., " <i>Scrambler</i> and <i>yotari</i> Disrupt the <i>disabled</i> Gene and Produce a <i>reeler</i> -like Phenotype in Mice," <u>Nature</u> 389: 730-733 (1997).		
_____ DX	Soriano, "The PDGF α Receptor is Required for Neural Crest Cell Development and for Normal Patterning of the Somites," <u>Development</u> 124: 2691-2700 (1997).		
_____ DY	Yoneshima et al., "A Novel Neurological Mutant Mouse, <i>yotari</i> , Which Exhibits <i>reeler</i> -like Phenotype but Expresses CR-50 Antigen/Reelin," <u>Neurosci. Res.</u> 29: 217-223 (1997).		
EXAMINER		DATE CONSIDERED	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

